

# Testicular Self-Examination: A Public Awareness Program

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## Synopsis .....

*Testicular cancer is responsible for one out of seven deaths among late adolescent and young adult males. It is the number one cancer killer of men in the second and third decade of life. However, the population at risk, men between the ages*

*15 and 35, is singularly unaware of this cancer's existence and its potential danger. A public awareness program has been designed to increase consciousness about this possibly fatal disease and to enhance early detection and cure through a program of testicular self-examination (TSE).*

*This proposal incorporates intervention at local, State, and national levels. It contemplates an innovative campaign beginning at the local level, focusing on the target population and utilizing a collaboration between nonprofessionals and professionals. The aim is for a grass-roots beginning and continued public interest to culminate in a national campaign, similar to that of breast self-examination.*

*The ultimate goal of the program is to prevent the loss of lives to testicular cancer through public education and through use of TSE.*

**T**ESTICULAR CANCER, the seldom-discussed malignancy, is found in both pediatric and adult populations.

Even though it comprises only 1 to 2 percent of all malignant neoplasms in males (1,2), testicular cancer accounts for about 14 percent of all cancers of the male genitourinary system (3). It is the most common solid tumor found in males between the ages of 15 and 35 years (4,5) and is the number one cancer killer of men in the second and third decade of life (3). Even though testicular cancer is responsible for one out of seven deaths among late adolescent and young adult males, the population at risk is singularly unaware of this cancer's existence and of the danger that this devastating disease poses.

This project is designed to increase public awareness, especially in the at-risk population, of a potentially fatal disease and to enhance early detection and cure through a program of testicular self-examination.

## The Population at Risk

The cause of testicular tumors is still unknown, although certain risk factors have been identified. A principal risk factor which has been well-documented is cryptorchidism, or undescended testes (2,4-9).

A male with one or both undescended testicles is 30-40 times more likely to develop testicular cancer than a male with normally descended testicles (3). The incidence of testicular cancer is greatest in the undescended testicles, but one out of five testicle tumors that develop in patients with a history of cryptorchidism arises in the testis that is normally descended (3). Early surgical correction of cryptorchidism is strongly advised, but correction does not exclude future problems with sterility, nor has it been shown to prevent the development of later malignancy of the testes (8). Testicular self-examination on a routine basis is, therefore, especially important for males with cryptorchidism.

Another risk factor is a previous history of testicular cancer. It is not unusual for a second tumor to develop in the opposite gonad. The risk that men who have had testicular cancer will develop a second neoplasm in the remaining testis is 700 times greater than the risk that men in the general population will develop an initial testicular neoplasm (3). Therefore, the necessity for indefinite observation for a patient who was diagnosed and treated for a testicular tumor cannot be overemphasized.

Other risk factors include a familial history of testicular cancer and trauma to the testes. The role of trauma is unclear, since it is possible that trauma simply focuses attention on an already existing

tumor (2). In addition, for unknown reasons, the incidence of testicular cancer is four times higher among white males than among blacks.

### **Profile of the Problem**

The earliest detectable symptom of testicular neoplasm is a small, hard, usually painless lump in the testis. It is slightly more common in the right testis (52.3 percent) than in the left (47.7 percent), and only 2–3 percent of tumors occur bilaterally (3). Bilateral involvement is often successive rather than simultaneous (8).

Other symptoms include a subtle change in consistency or a slight enlargement of the affected testis. The weight or positioning of the tumor may cause discomfort, such as a dragging sensation in the scrotum. Breast enlargement (gynecomastia) and enhanced pigmentation of the nipples have been reported in a small number (2–4 percent) of patients with some testicular neoplasms (2,3,7), and these symptoms are regarded as a systemic endocrine manifestation with a correspondingly poor prognosis. Pain is a late symptom, developing only after the nerves of the tunica albuginea or epididymis have become involved (6). Painlessness is a hindrance to early detection and treatment, since the absence of pain frequently leads to a delay of weeks or months between onset and clinical examination. Testicular cancer is a fast-acting disease that can spread quickly out of control (10). Since any delay in diagnosis and treatment can be critical, all testicular changes should be evaluated immediately.

A high cure rate occurs with early detection. While prognoses differ among the various types of testicular cancers, cure rates for all but the most advanced cases have risen to between 85 percent and 90 percent in malignancies that are detected early. The 5-year survival rate decreased drastically to 60 percent in patients with malignancies detected in later stages (3).

Testicular tumors are frightening, since 96 percent of them are malignant, and they often metastasize before the primary lesion is detected (3). However, testicular tumors usually can be found in an early stage by palpation. The major deterrent to early detection and treatment is young men's lack of knowledge of the great danger of testicular cancer and the lack of awareness of the need for regular self-examination. When a tumor is treated early, the prognosis is good. Thus, there is a need to educate the public about early detection and treatment.

A significant fact in testicular cancer is that any changes in the testes are usually noticed initially by

the man himself while bathing or showering, or by his sexual partner. Only 4 percent of tumors are detected by clinicians doing a workup for infertility (3).

Clinicians can play a significant role in the implementation of an early detection and treatment plan for testicular cancer. An integral part of the professional examination of the genitourinary system should be an assessment of the testes, regardless of the client's age. Clinicians can assess and instruct clients about high-risk factors and, most importantly, they can encourage patients to examine their own testes on a regular basis. Health professionals can reassure the client that testicular self-examination is a simple, painless procedure, easy to learn and requiring about 3 minutes to complete.

Patient education should emphasize the importance of reporting abnormal findings immediately, since the patient frequently delays seeking evaluation of minor symptoms such as a slightly enlarged testis, possibly because of fear of sexually transmitted diseases, or because of guilt. Presently, approximately 50 percent of all testicular cancers are diagnosed after the tumor has spread to other organs, so early diagnosis of any abnormality is of prime importance.

If testicular tumors are usually discovered by the individual himself and if early detection is the key to good prognosis, why isn't testicular self-examination a well-known and practiced technique?

The most obvious answer seems to be a lack of awareness by young men about this cancer and of the need for self-examination (6). Conklin and co-workers explored the need for and the interest in a health education program about testicular self-examination at the University of Vermont. A random sample of 90 students, ranging in age from 18 to 23, were interviewed. The survey indicated that, if information about testicular cancer and testicular self-examination is considered important, education should be undertaken. While 58 percent (52) of the men interviewed had taken a health-related course in the past 2 years, 75 percent (67) had never heard of testicular cancer. None knew how to examine their testes correctly, and only one knew what to palpate for. Since this sample represented a young, well educated, male population, one can conclude that many other men with lower levels of education are even less informed.

In addition, clinicians themselves do not instruct their male clients about testicular self-examination and encourage regular monthly exams, and they do not use opportunities such as school and sports

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physicals for health teaching. In a review of the literature, the most recent physical assessment texts made no mention of testicular self-examination, even though the authors encouraged the practice of breast self-examination for adolescent girls and women. While several journal articles from 1978 to 1983 documented the need for testicular self-examination and increased awareness by the public, including both lay and professional audiences, their plea has been largely ignored.

### **The Program Proposal**

An innovative public awareness campaign supported by both local and national organizations and incorporating community and professional resources has the potential to change the present situation. Its purpose is to promote self-examination and to increase public awareness of testicular cancer, thus increasing the chance of early detection and treatment. In order to reach the goal of optimum health for these young men at risk, emphasis is placed on the primary level of prevention through health education. Primary prevention, a major part of health promotion, involves averting the occurrence of disease with the use of early detection techniques, in particular testicular self-examination. "Health education" in this context includes teaching people about their bodies and promoting a sense of responsibility and self-care, as well as educating health professionals to include testicular palpation in their examinations, to provide explanations of the procedure, and to encourage questions from their patients.

Information regarding the nature of testicular cancer, its causative factors and preventive measures is only one component of health education (11). An equally important component is the concept of motivation. According to Burton (12), motivation is to want optimum health, regardless of the expense of time, energy, or money. The present

plan includes specific measures to motivate the population at risk, including education that is adjusted to varying learning levels and directed to situations of immediate interest for particular age groups.

A public awareness campaign using a multidimensional approach at local, State, and national organizational levels is the keystone of the plan. Implementation would begin with local community organizations. Outreach would be directed to junior high and high school students, college students, educators, practicing professionals, and health organizations. Emphasis would be placed on contact with the target population, young men from 15 to 34 years of age. The unique aspects of the proposed campaign are the provision of an opportunity for lay people to collaborate with health professionals to initiate change and the inclusion of active participation by individuals in the target population to facilitate their learning process.

Beginning on the local level, a tool for the purpose of instruction and education about testicular cancer and self-examination procedure has been developed. This tool, a pamphlet, is designed to convey vital information and to educate the public.

The pamphlet also serves as the entry point into the target population by involving students from a local school system. The pamphlet, written by health professionals, was presented by the art department of a high school to the male students, and artwork was solicited to be used for the pamphlet cover. The result of this joint venture was a tool that was judged to be visually appealing and informationally effective. More important, individuals from the target population became actively involved and motivated.

The school system can provide exposure to a large proportion of the target population. Further use of the schools would be attempted through contact with school nurses of both junior and senior high schools and parent-teacher associations. Not only would these groups be educated about testicular cancer and self-examination so they could share this information with their children and students, but they also would be encouraged to participate in the public awareness campaign.

In addition, practitioners who conduct physical examinations and screenings of male students would be asked to instruct students on self-examination.

Movement from the school system to the community at large would be initiated through contact with the county department of health. The health department, which coordinates various clinics in

the community, would be asked to instruct its clinicians to teach and encourage regular self-examination for those in the at-risk population. Professionals working with parents and younger children could provide advance guidance, especially in the case of cryptorchidism. In addition, staff of sexually transmitted disease clinics could institute a policy of instructing male clients in self-examination.

Outreach to practicing professionals would be provided at the local level through letters and followup telephone contact with various professional organizations. These groups include the school nurse-teacher association, pediatric nurse practitioner association, family nurse practitioner association, and county medical association.

Local media would be enlisted to reach the larger population. An article on testicular cancer and prevention by early detection and treatment would be submitted to the local newspaper. Short informative programs would also be offered to local radio and public television stations.

Formal education of health professionals through colleges and universities would be the final thrust on the local level.

In the present program, funds for the self-examination pamphlet were obtained from Education and Research on Sexuality (EROS), an organization at the State University of New York at Stony Brook. EROS, which offers peer counseling, will distribute the pamphlet and counsel on self-examination. In addition, the health programs at the university—a medical school, a nursing school, and a school of allied health—will be included in the implementation. These schools could play several roles in the plan. Educators in each would be made aware of the deficit in knowledge among the professional groups and could include explaining self-examination to their students, especially in courses such as physical assessment.

Students represent potential manpower in implementing the public awareness campaign. Also, various schools have grant money for community interest programs available to them, and they would be encouraged to invest funding in the project. Other resources on campus include the university infirmary, which many male students visit, and the campus newspaper, which reaches more of the college community.

A long-term goal utilizing the university system would be the development of a symposium on health promotion and disease prevention for men, focusing on testicular self-examination. Also, the university hospital and the university could collabo-

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rate in holding a testicular screening day that includes self-examination instruction.

The second level of intervention entails State implementation. The long-term goal is establishment of standards of health care in the State school system to make self-examination instruction part of required health education. Professional organizations would also be approached at the State level. Two important groups are the New York State Nurses Association and the New York State Medical Association. Suggestions by these organizations to their members would be influential.

The last level of intervention is national. Short-term goals are related to the education of health professionals and increasing public awareness as well as encouraging authors to integrate self-examination into appropriate text materials and getting broad media coverage of public interest programs. Long-term goals are to involve national organizations such as the American Cancer Society. Although local chapters of these groups would be approached first, it is hoped that the campaign would eventually become a national project.

The ultimate goal is to prevent the loss of lives to testicular cancer through public education regarding the disease and the need for self-examination. The aim is for the grass-roots beginning and continued public interest to culminate in a national campaign to encourage this lifesaving practice, similar to that for breast self-examination.

The time for teaching self-care and promoting self-responsibility is now. Naisbitt (13) sees the present trend, "The new health paradigm," as a shift from institutional held (the medical establishment) to self-help (personal responsibility for health). During the 1970s, Americans began to disengage from the institutions that had disillusioned them, including the medical establishment, and began to take action on their own. The medical system could no longer serve as a buffer against life's hard realities. Entering the 1970s without the long-promised cure

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for cancer, people began to question the omnipotence of science. After trusting institutional help for so long, the public slowly began to wean itself from collective institutional dependence and turn to self-reliance. People are just now reclaiming the responsibility for their health and well-being that had previously been given to the medical establishment. Today, people are making decisions about their health and taking care of themselves.

Testicular self-examination provides one segment of the population—young men—with the opportunity to assume personal responsibility for their own health.

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## ABSTRACTS OF SEMIFINALISTS' PAPERS

### **Students, Optometrists Prove Feasibility of Mass Vision Screening in Portland, OR**

**A. J. Zelada, OD**

More than one-half of the United States population needs some form of vision health care, but only one-fourth is receiving it. A program is proposed for screening the ocular health of the population, from newborns to persons in their nineties. It has as its prototype the March 10, 1984, public screening in Portland, OR. That event used resources from the community—practicing optometrists, the media (newspaper and television), and student interns at the Pacific University College of Optometry. Expenses, about \$4,500, were met by donations from the alumni and professional organizations.

The screening was designed for three specific groups: (a) adults and children who needed no supervision and were able to read letters, (b) children who could not read letters and who needed assistance of their parents, and (c) infants (newborn to 2 years). Of the 750 persons (aged 2 months to 94 years) who were examined in an 8-hour period, 74.6 percent failed because of one or more of the following reasons: poor visual acuity, hypertension, poor visual skills, strabismus, at-risk for glaucoma with high intraocular pressure, and directly observed ocular abnormalities and pathology.

Such programs are valuable because they alert the public to the need for early detection of visual and health-related ocular abnormalities. The public screenings are feasible when students from a health professions school are available to raise

funds and execute the screening, local practitioners volunteer to assist at screening, the media collaborate to promote the program, and a facility can be used that is easily accessible by public transportation and large enough to accommodate the crowd.

*Entry submitted by the Forest Grove, OR, Optometry Clinic. Dr. Zelada's address: 5390 North West Neakahnie, Portland, OR 97229.*

### **A Hospital-Home Fall Prevention Program for the Elderly**

**Laurie M. Vaughn**

This two-phase safety program features an assessment tool to be used when screening for hazards that con-